








# Plan Using SOLO/Bloom's Taxonomies with Questioning, Thinking and ICTs

SOLO	BLOOM'S	Learning Cues	Learning Experiences	Thinking Tools/Graphic Organisers/Hats/ICTs
 Unistructural	<b>Knowledge</b> (Questions that ask for the recall of facts)	<ul style="list-style-type: none"> <li>• Observation and recall of facts</li> <li>• Knowledge of dates, events, places</li> <li>• Knowledge of major ideas</li> <li>• Mastery of subject matter</li> <li>• List details</li> <li>• Remember information</li> </ul>	list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, <i>who? when? where? what?</i>	 ☞ Open and Closed Questions ☞ Circle Maps, Bubble Maps, Double Maps, Web Maps, Brainstorms, Spider Diagrams, ☞ Explosion Charts, T Charts, Think-Pair-Share, Y Charts, Bus Stops, ☞ Define Map, Relevant/Irrelevant ☞ KEYS: Alphabet Key, Variations, Picture, Brainstorming ☞ Surveys,  <b>ICTs: e.g.</b> directories/ search engines, Google map; concept mapping; word processing; databases/ spread sheets; environmental probes Web 2.0 based: image storing, word processing, social bookmarking "to do" lists, notetaking, calendars, group mapping, aggregators, RSS feeds, blogs, wikis, forums, synchronous/synchronous communication, peer to peer networks, podcasting, SMS text, ism, email, fax, telephone, listservs, newsgroups
 Multistructural	<b>Comprehension</b> (Questions that ask for an understanding of the information)	<ul style="list-style-type: none"> <li>• Examples given</li> <li>• Important details restated</li> <li>• Explanation of how something works</li> <li>• Understanding information</li> <li>• Grasp meaning</li> <li>• Translate knowledge into new context</li> <li>• Interpret facts, compare, contrast</li> <li>• Order, group, infer causes</li> <li>• Predict consequences</li> </ul>	summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend, scan, <i>why?</i>	<b>ICTs: e.g.</b> directories/ search engines, Google map; concept mapping; word processing; databases/ spread sheets; environmental probes Web 2.0 based: image storing, word processing, social bookmarking "to do" lists, notetaking, calendars, group mapping, aggregators, RSS feeds, blogs, wikis, forums, synchronous/synchronous communication, peer to peer networks, podcasting, SMS text, ism, email, fax, telephone, listservs, newsgroups
 Relational	<b>Application</b> (Questions use previously gained knowledge in new situations, applying rules and new theories)	<ul style="list-style-type: none"> <li>• Most important details selected</li> <li>• Information organised</li> <li>• Show how something works</li> <li>• Make something work</li> <li>• Use information</li> <li>• Use methods, concepts, theories to new situations</li> <li>• Solve problems using required skills or knowledge</li> </ul>	apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover	 ☞ Open and Closed Questions ☞ PMI, Cross Classification Charts, Pictographs, Tree Diagrams, Concept Map, Venn Diagrams, Double Bubble, SWOT Analysis, Bridge Maps, Continuum Line, Rating Ladder, Timeline, Flow Chart, Cycle Storyboard,

	<b><u>Analysis</u></b> (Questions that break an idea down into parts to clarify meaning)	<ul style="list-style-type: none"> <li>• Connections made between this and other things, cause and effect</li> <li>• Parts of the whole are examined and put into correct groups</li> <li>• Seeing patterns</li> <li>• Organisation of parts</li> <li>• Recognition of hidden meanings</li> <li>• Identification of components</li> </ul>	analyse, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer, reason, sequence, <i>how?</i>	<b>Jigsaw, Brace Maps,</b> ☞ <b>Part/Whole Map, Cause and Effect Maps/Chains, Analogy Map</b> ☞ <b>KEYS: Reverse Listing, Disadvantages, BAR, Alphabet, Variations, Picture, Commonality, Question, Brainstorming</b>  <b><u>ICTs:</u> e.g.</b> concept mapping, graphic organisers, simulations, domain specific modelling software; microworlds spreadsheets
 Extended Abstract	<b><u>Synthesis</u></b> (Questions that put together ideas in a new way. Creating a new product, or thinking in a new creative way)	<ul style="list-style-type: none"> <li>• A better way of doing things</li> <li>• Something has been redesigned or blended together with the old and the new</li> <li>• A hypothesis or prediction has been made</li> <li>• Use old ideas to create new ones</li> <li>• Generalize from given facts</li> <li>• Relate knowledge from several areas</li> <li>• Predict, draw conclusions</li> </ul>	combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if? Compose, formulate, prepare, generalize, rewrite	 ☞ <b>Open and Closed Questions</b> ☞ <b>PMIS, Fishbone Diagram, Relations Diagram, Algorithm, Flowscape, Scamper, Multiflow Maps, Tree Maps, Circle Maps, Double Bubble Maps, Webs,</b> ☞ <b>KEYS: What if? Combination, Prediction, Different Uses, Ridiculous, Inventions, Brick Wall, Construction, Forced Relationships, Alternative, Interpretation</b> ☞ <b>Reflective Journals</b>  <b><u>ICTs:</u> e.g.</b> multimedia hypermedia authoring software, argument mapping software, PowerPoint, asynchronous/synchronous communication; Peer to peer networks, podcasting, SMS text, ism, email, fax, telephone, listservs, newsgroups, blogs, wikis
	<b><u>Evaluation</u></b> (Questions that encourage the value of ideas and products against set criteria)	<ul style="list-style-type: none"> <li>• Pointing out strengths and weaknesses</li> <li>• Evaluating its clearness, accuracy, value</li> <li>• Convincing others of its value/worth</li> <li>• Compare and discriminate between ideas</li> <li>• Assess value of theories, presentations</li> <li>• Make choices based on reasoned argument</li> <li>• Verify value of evidence</li> <li>• Recognise subjectivity</li> </ul>	assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, forecast, imagine, support, conclude, compare, summarize, idealise, apply a principle, speculate, <b>What if? Would? Could? Should? Can? I wonder...</b>	

